I, LEANNE MYNOTT, MANAGER EXAMINATION SUPPORT AND SALES hereby certify that annexed is a true copy of the Provisional specification in connection with Application No. PR 6600 for a patent by IAN ROBERT SYMONS as filed on 26 July 2001.

WITNESS my hand this
Twenty-fifth day of July 2002

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PROVISIONAL SPECIFICATION

Invention title: Heater core.

The invention is described in the following statement:

Definition: The term **'open wire element'** used in this document refers to a mechanically supported heating element consisting of an exposed resistive wire that is energised electrically.

Definition: The term **'air element'** used in this document refers to an **open wire element** that is constructed such as to have maximal air exposure whereupon a forced draught of air both prevents excessive temperatures plus provides an output of heated air.

Definition: The term **'coil core'** used in this document refers to the resistive wire of an **open wire element** that is wound in the form of a helix or similar style of three dimensional structure.

Definition: The term **'coil element'** used in this document refers to an **air element** using a **coil core**.

Definition: The term **'mica'** used in this document refers to electrical insulating material that has a sufficiently high temperature rating such as to be able to be used in contact with an operating **open wire element**.

Definition: The term **'tongue'** used in this document refers to a flat strip of **mica**.

Definition: The term **'tongue support'** used in this document refers to two or more pieces of **mica** that come together such as to enclose the short axis of a **tongue**.

A definition appended with the letter 's' infers a plural form of the said definition.

This invention relates to improvements in the art of **coil element** design.

Conventional techniques of **coil element** design either consist of an unsupported **coil core** or consist of a **coil core** that is supported by a ceramic bar or consist of a **coil core** that is supported by a **mica** cord.

This invention consists of a **coil core** that is internally supported by a **tongue** whilst the said **tongue** is supported by a number of **tongue supports**.

In another form of the invention a plurity of **coil cores** with their respective **tongues** are supported by common **tongue supports**.

The invention has advantages over the previous forms of the art in that long structures can be created that can both withstand moderate shock plus be mounted in vertical or near vertical positions.

It will be realized that the components of the invention may be of any suitable type that will perform the functions of the invention.

To assist with understanding the invention, reference will now be made to the accompanying drawing that shows one example of the invention.

In the drawing:

Figure 1 shows several views of a heater core according to this invention.

Referring to Figure **1** it can be seen that a heater core according to this invention consists of a **coil core 1** with a **tongue 2** and a number of **tongue supports 3** arranged such that the **coil core 1** can be exposed to a minimally impeded airflow **4**.

It will be realized that the construction of the invention according to this invention is not restricted to the forms as shown in the drawing but may use many different forms to achieve the same result.

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26 July 2001
Date

Figure 1

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